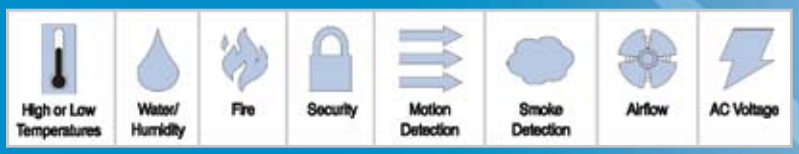
BLACK BOX
NETWORK SERVICES

AlertWerks™ ServSensor Monitoring Hubs and Intelligent Sensors

Guard your mission-critical IT equipment against physical threats—remotely.

» Monitors temperature, humidity, water, airflow, motion, and voltage.

» Notifies you by audible alarms, e-mail, SNMP, text messages, or fax.



EME134A-R2

About Black Box

Black Box Network Services is your source for an extensive range of networking and infrastructure products. You'll find everything from cabinets and racks and power and surge protection products to media converters and Ethernet switches—all supported by free, live 24/7 Tech Support available in 30 seconds or less.

Black Box Tech Support: FREE! Live. 24/7.

Great Tech Support is just 30 seconds away at 724-746-5500 or blackbox.com.

FREE—The advice is absolutely FREE whether you buy or not!

Live—Our techs answer your calls live from our headquarters near Pittsburgh, PA.

24/7—Call our product experts with questions anytime day or night.

Why buy from Black Box? Exceptional value. Exceptional Tech Support. Period.

Recognize any of these situations?

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" is a customer service rep who can't help you.
- You don't have a purchase order number or a credit card so the tech won't help you.
- It's 9 P.M. and you need help, but your vendor's tech support line is closed.

Even though network managers routinely pay anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive often falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support. You can even consult our Tech Support experts before, during, and long after your transaction. It's all part of our commitment to your success.

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We are here to help! If you have any questions about your application, our products, or this brochure, please contact Black Box Tech Support at **724-746-5500**. You'll be live with one of our technical experts in less than 30 seconds.

Guard your mission-critical IT equipment against physical

Beyond virus protection.

It has become almost automatic to protect your data center by backing up your servers, installing firewalls and virus protection, and keeping the protection up-to-date.

But what about more tangible threats? Do you have hot spots in your racks? If the cooling system shuts down, how will you know when temperatures climb out of control? Are you alerted to humidity changes or water leaks that threaten your equipment?

Planning for the unexpected is a critical task because there are more systems performing mission-critical functions than ever before. These systems are often deployed without the proper environmental infrastructure to support them. Equipment density is increasing constantly, which is creating more stress on ventilation and power.

That's where Black Box's environmental monitoring systems enter the picture.

The top three IT risks:

1. Environmental disruption.

The number one cause of downtime for remote locations, environmental problems go beyond fires and floods and affect as much as 30% of a company's mission-critical infrastructure. Cooling and power are key points of exposure and increase as equipment density does.

2. Unnecessary risk.

When systems are housed in less-than-optimal settings, or are in remote and unsupervised locations, any error causes downtime. Yet, it's not practical to have someone babysitting the servers. We offer more effective ways to keep track of your equipment.

3. Sabotage.

Regardless of the probability, terrorism is now something each of us must plan for. Your systems can also be brought down from within if the proper security safeguards are not in place.

What's an environmental monitoring system?

Environmental monitoring products enable you to actively monitor the conditions in your rack, server room, data center, or anywhere else you need to protect critical assets. Conditions monitored include extreme temperatures, humidity, power spikes and surges, water leaks, smoke, and chemical materials. With proper environmental monitoring, you're alerted to any conditions that could have an adverse effect on your mission-critical equipment. These products can also alert you to potential damage from human error, hacking, or prying fingers.

Environmental monitors consist of three main elements: a base unit, probes or sensors, and network connectivity and integration. The base units may contain one or more built-in sensors, as well as ports for hooking up external probes. Additionally, they include an Ethernet port and have software for remote configuration and graphing. This software may also work with existing network management software, such as SNMP systems.

Features:

Measurement (see chart below).

The environmental monitoring appliance displays the values measured by the attached probes, e.g. temperature, humidity, airflow, status of dry contact, door, motion detector, and other sensors.

Data collecting and graphing (see chart below).

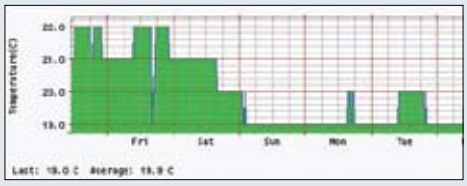
The measurements are periodically stored in the internal memory or external storage media and displayed as graphs.

Alerting (see chart on facing page).

When the measured value exceeds the predefined threshold, it triggers an alert: a blinking LED on the front panel, an audible alarm, SNMP trap, e-mail, etc. The environmental monitoring appliance can also activate an external alarm system like a siren or strobe light.

Temp Rack 03	66° F (19° C)
Humidity Rack 03	34%

Measurement



Data Collecting and Graphing

Benefits of environmental monitoring:

- **Reduced downtime**—When things go wrong, you're the first to know. Minimize downtime by being alerted about conditions that cause damage to servers and other network devices.
- **Increased profits**—Black Box environmental monitoring systems are easy to implement. Also, they help you cut replacement equipment costs and redistribute your workforce more effectively.
- **Increased employee satisfaction**—With built-in notification features like e-mail, SMS, and SNMP traps, a remote monitoring system enables employees to better manage their work.

Applications:

The Black Box AlertWerks System consists of SNMP-enabled, Web-based monitors that alert the user to any abnormal conditions. AlertWerks monitors multiple environmental conditions, including temperature, humidity, airflow, smoke, security, and voltage. Black Box has complete solutions for a variety of applications, including:

- Data center monitoring
- Computer room monitoring
- Rackmount industrial equipment
- Telecommunications
- UPS/battery backup
- Educational institutions
- Food and beverage applications
- Buildings/warehouses
- Air conditioner/refrigerants/freezer monitoring
- Greenhouses

threats—from temperature extremes to water damage.

Buyer's Guide | AlertWerks Sensor Hub Features

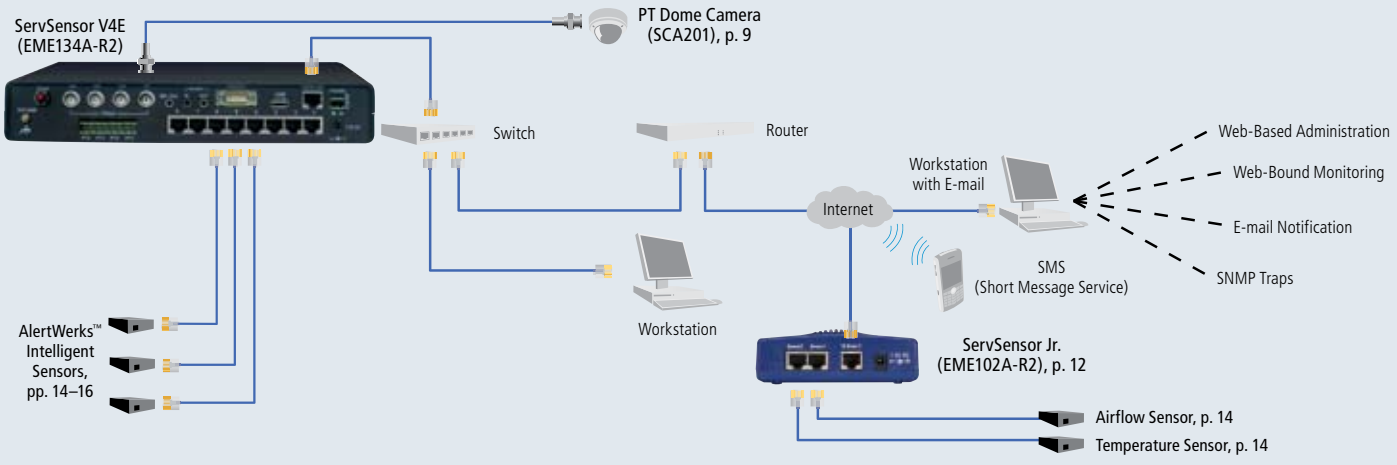
For product details, see **pages 8–13** or go to **blackbox.com**.

	ServSensor V4E (EME134A-R2)	ServSensor V4EL (EME144A, EME149A-20, EME149A-60, EME149D-20, EME149D-60)	ServSensor (EME108A-R2, EME158A)	ServSensor 4 (EME105A, EME155A)	ServSensor Junior (EME102A-R2) EME152A)	ServSensor Contact (EME111A-20-R2, EME111A-60)
Features						
Intelligent sensors supported (maximum)	500*	500*	8	4	2	8
Dry contacts supported (maximum)	2/60/500*	2/60/500*	8	4	10†	28 / 68 ‡
Cameras supported (maximum)	4	—	—	—	—	—
Alerting						
Relay output	✔	✔	✔	✔	✔	✔
Siren and strobe light	✔	✔	✔	✔	✔	✔
SNMP trap	✔	✔	✔	✔	✔	✔
E-mail	✔	✔	✔	✔	✔	✔
SMS	✔**	✔**	✔§	✔§	✔§	✔§
MMS	✔**	No	—	—	—	—
Phone call	✔††	✔††	—	—	—	—
Skype® call	✔	✔	—	—	—	—
FTP upload	✔	✔	—	—	—	—
Picture log	✔	✔	—	—	—	—
Wakeup/shutdown	✔	✔	—	—	—	—
Virtual sensors	✔	✔	—	—	—	—

*Requires expansion hubs.
†With two 5-dry contact input cables and license.

‡20 and 60 dry contacts respectively, plus up to 8 dry contacts at the standard sensor ports.
§Requires third-party e-mail to SMS gateway.

**Requires third-party GSM USB modem.
†† Requires third-party voice modem.



Buyer's Guide | AlertWerks Sensor Hub Compatibility

For product details, see **pages 8–16** or go to **blackbox.com**.

Sensor	Sensor Code	ServSensor V4E	ServSensor V4EL	ServSensor ServSensor 4 ServSensor Contact	ServSensor Junior
Temperature/Humidity					
Temperature Sensor, Standard, 1-foot (0.3-m) Cable	EME1T1-001	Yes	Yes	Yes	Yes
Temperature Sensor, Remote, 5-foot (1.5-m) Cable	EME1T2-005	Yes	Yes	Yes	Yes
Temperature Sensor, Waterproof, 15-foot (4.5-m) Cable	EME1T3-015	Yes	Yes	Yes	Yes
Dual Temperature Humidity Sensor, Standard, 1-foot (0.3-m) Cable	EME1TH1-001	Yes	Yes	Yes	Yes
Dual Temperature Humidity Sensor, Remote, 5-foot (1.5-m) Cable	EME1TH2-005	Yes	Yes	Yes	Yes
Dual Temperature Humidity Sensor, Waterproof, 15-foot (4.5-m) Cable	EME1TH3-015	Yes	Yes	Yes	Yes
Temperature Sensor, Daisychainable	EMEDTEMP	Yes	Yes	No	No
Temperature Sensor, Daisychainable, 4-Pack	EMEDTEMP4	Yes	Yes	No	No
Temperature Sensor, Daisychainable, 8-Pack	EMEDTEMP8	Yes	Yes	No	No
Thermocouple Adapter, J-Type	EME1TCAJ-005	Yes	Yes	No	No
Thermocouple Adapter, K-Type	EME1TCAK-005	Yes	Yes	No	No
Thermocouple Probe & Adapter, J-Type	EME1TCBJ-005	Yes	Yes	No	No
Thermocouple Probe & Adapter, K-Type	EME1TCBK-005	Yes	Yes	No	No
Thermocouple Probe, J-Type	EME1TCPJ	Yes	Yes	No	No
Thermocouple Probe, K-Type	EME1TCPK	Yes	Yes	No	No
I/O					
4-20 mA Converter, 5-foot (1.5-m) Cable	EME1C1-005	Yes	Yes	Yes	Yes
Dry-Contact Sensor, 15-foot (4.5-m) Cable	EME1K1-015	Yes	Yes	Yes	Yes
Dry-Contact Sensor, 60-foot (18-m) Cable	EME1K1-060	Yes	Yes	Yes	Yes
Dry-Contact Sensor, 100-foot (30.5-m) Cable	EME1K1-100	Yes	Yes	Yes	Yes
Dry-Contact Sensor, 5 Inputs, 15-foot (4.5-m) Cable	EME1DC-015	No	No	No	Yes
Dry-Contact Sensor, 5 Inputs, 60-foot (18-m) Cable	EME1DC-060	No	No	No	Yes
Dry-Contact Sensor, 5 Inputs, 100-foot (30.5-m) Cable	EME1DC-100	No	No	No	Yes
Dry Contact Expansion Hub for V4E and V4P	EME1DC16	Yes	Yes	No	No
Digital I/O Sensor, (8) Dry Contacts, with 5-foot (1.5-m) Cable	EME1J8-005	Yes	Yes	No	No
Digital I/O Sensor, (2) RJ-45 to (8) Dry Contacts, with 5-foot (1.5-m) Cable	EME1KJ8-005	Yes	Yes	No	No
ServSensor Expansion Unit, 8-Port Relay Hub for V4E and V4P	EME1P8	Yes	Yes	No	No
Air/Smoke					
Airflow Sensor, 5-foot (1.5-m) Cable	EME1W1-015	Yes	Yes	Yes	No
Photoelectric Smoke Detector, 5-foot (1.5-m) Cable	EME1W1-060	Yes	Yes	Yes	Yes
Fluids					
Water Sensor, 15-foot (4.5-m.) Cable	EME1W1-015	Yes	Yes	Yes	Yes
Water Sensor, 60-foot (18-m.) Cable	EME1W1-060	Yes	Yes	Yes	Yes
Water Sensor, 100-foot (30.5-m.) Cable	EME1W1-100	Yes	Yes	Yes	Yes
Rope Water Sensor, 20-foot (6.0-m) Cable	EMERW-020	Yes	Yes	Yes	Yes
Rope Water Sensor Extension, 10-foot (3.0-m) Cable	EMERWE-010	Yes	Yes	Yes	Yes
Intelligent Rope Water Sensor, 10-foot (3.0-m) Extension	EMELW-010	Yes	Yes	Yes	No
Intelligent Rope Water Sensor, 20-foot (6.0-m)	EMELW-020	Yes	Yes	Yes	No
Rope Fuel Sensor, 9.8-foot (3-m)	EME1RF-003	Yes	Yes	Yes	No
AlertWerks Ultrasonic Fuel Level Sensor, 15-foot (4.5-m.) Cable	EME1FL-015	Yes	Yes	No	No

Buyer's Guide | AlertWerks Sensor Hub Compatibility

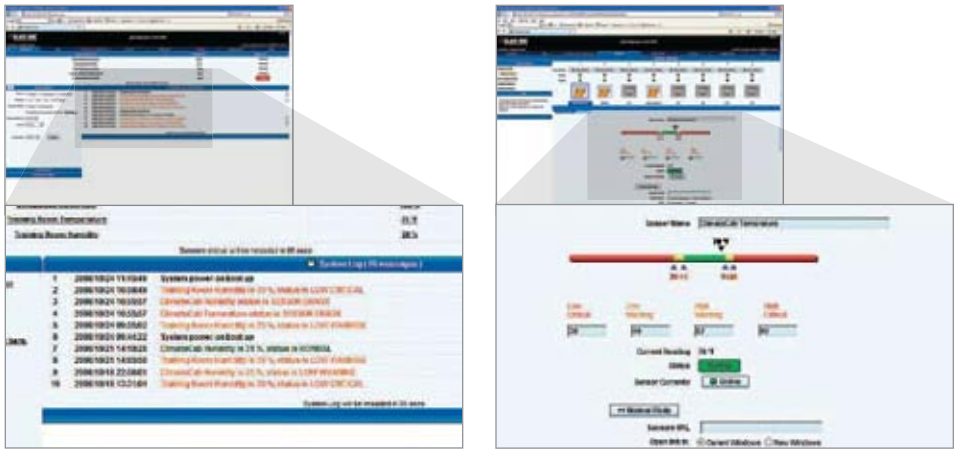
For product details, see **pages 8–16** or go to **blackbox.com**.

Sensor	Sensor Code	ServSensor V4E	ServSensor V4EL	ServSensor ServSensor 4 ServSensor Contact	ServSensor Junior
Security					
Motion Detection Sensor, 5-foot (1.5-m) Cable	EME1M1-005-R2	Yes	Yes	Yes	Yes
Security Sensor/Contact, 15-foot (4.5-m) Cable	EME1Y1-015	Yes	Yes	Yes	Yes
Security Sensor/Contact, 60-foot (18-m) Cable	EME1Y1-060	Yes	Yes	Yes	Yes
Security Sensor/Contact, 100-foot (30.5-m) Cable	EME1Y1-100	Yes	Yes	Yes	Yes
Siren and Strobe Light, 5-foot (1.5-m) Cable	EME1SS-005	Yes	Yes	Yes	Yes
Electricity					
AC Voltage Sensor, 5-foot (1.5 m) Cable	EME1A1-005	Yes	Yes	Yes	Yes
DC Voltage Sensor, 5-foot (1.5 m) Cable	EME1D1-005	Yes	Yes	Yes	Yes
Power Monitor, 110-VAC, 3-Phase, 30 Amps	EME1PM	Yes	Yes	No	No
Power Monitor, 220-VAC, 3-Phase, 100 Amps	EME2PM-R2	Yes	Yes	No	No
Power Monitor, 110 VAC, 1-Phase, 100 Amps	EME3PM	Yes	Yes	No	No
Power Monitor, 220-VAC, 1-Phase, 100 Amps	EME4PM	Yes	Yes	No	No
Power Monitor Sensor, Single-Phase, 100V, 60 Hz	EME1PMS1	Yes	Yes	No	No
Power Monitor Sensor, Single-Phase, 220–240V, 50 Hz	EME1PMS2	Yes	Yes	No	No
Power Monitor Sensor, Three-Phase, 100–500V, 60 Hz	EME1PMS3	Yes	Yes	No	No
Split-Core Current Transformer, 100/5A	EME1CT100	Yes	Yes	No	No
Split-Core Current Transformer, 200/5A	EME1CT200	Yes	Yes	No	No
Split-Core Current Transformer, 300/5A	EME1CT300	Yes	Yes	No	No
Power Switches					
Power Switch, 110V, Normally Closed, 5-foot (1.5-m) Cable	EME1P1C-005	Yes	Yes	Yes	Yes
Power Switch, 110V, Normally Open, 5-foot (1.5-m) Cable	EME1P1O-005	Yes	Yes	Yes	Yes
Power Switch, 220V, Normally Closed, 5-foot (1.5-m) Cable	EME1P2C-005	Yes	Yes	Yes	Yes
Power Switch, 220V, Normally Open, 5-foot (1.5-m) Cable	EME1P2O-005	Yes	Yes	Yes	Yes
Power Switch, 48 VDC, Normally Closed, 5-foot (1.5-m) Cable	EME1PDCC-005	Yes	Yes	Yes	Yes
Power Switch, 48 VDC, Normally Open, 5-foot (1.5-m) Cable	EME1PDCO-005	Yes	Yes	Yes	Yes
Cameras					
Pan/Tilt Dome Camera, NTSC	SCA201	Yes	No	No	No
Pan/Tilt Dome Camera, PAL	SCE201	Yes	No	No	No
Universal Mount Camera, NTSC	EME1FC-NTSC	Yes	No	No	No
Universal Mount Camera, PAL	EME1FC-PAL	Yes	No	No	No
Mounting					
Rackmount DIN Rail	EMEDIN	No	No	No	Yes
Dual Rackmount Bracket	EMEDRMK	Yes	Yes	Yes	No
Split Rackmount DIN Rail Bracket	EMESDIN	Yes	Yes	Yes	No
Expansion					
ServSensor Expansion Unit, 8-Port Sensor Hub	EME1X8	Yes	Yes	No	No
ServSensor Expansion Unit, 8-Port Relay Hub	EME1P8	Yes	Yes	No	No
ServSensor Expansion Unit, Dry Contact Expansion Hub	EME1DC16	Yes	Yes	No	No

AlertWerks ServSensor V4E Hub, V4EL Hubs

Real-time, extensive environmental and video monitoring and alerting system.

- Support up to eight plug-and-play Intelligent Sensors (**pages 14–16**).
- Can be daisychained to expansion hubs, increasing the total sensor count up to 500.
- V4E model also supports up to four surveillance cameras (see **facing page** for the AlertWerks cameras).
- Notify you of alarms in a variety of ways, including e-mail, SNMP, and text messages.
- Can also monitor up to 80 SNMP devices.
- Monitors external devices via SNMP or IP "ping."
- Manageable through an easy-to-use Web interface.
- Full SNMP v1, v2, and v3 compliance.
- Include a combination temperature/humidity sensor.
- ✦✦ **WARRANTY** — 1 Year



*Access the clear, easy-to-use graphical interface from your Web browser, like Alert log (**left**) and Sensor configurations (**right**).*

The AlertWerks ServSensor V4E family enables you to integrate environmental sensors and surveillance cameras into one seamless remote monitoring system that watches over your premises. Each ServSensor supports up to eight AlertWerks Intelligent Sensors (**pages 14–16**). Sensors automatically configure and go on-line, ready to report any status change. Choose from a wide variety of sensors, including temperature, humidity, water, airflow, motion, and voltage.

Each hubs gathers and displays sensor data in a easy-to-use, Web-based user interface, automatically generating day, week, month, and year graphs for each sensor. The data can be downloaded in a text file for external processing or remotely polled and saved automatically to a PC.

The Notification Wizard enables the hub to notify you of changes in sensor status in real time. Configure each notification by choosing a sensor, selecting the alarm condition, and defining what to do when the alarm is triggered. You can choose to be notified in a variety of ways: audible alarm, SNMP trap, e-mail, text message to your phone, or fax.

For instance, you can have the system e-mail you if the temperature in your data center goes over 75° F and send you a text message if the temperature continues to climb and goes over 80° F.

To prevent false alarms, AlertWerks allows extensive filtering of events. You can limit events based on the time of day or the day of the week. You can also limit the number of alerts per hour, so that you are not swamped with messages.

This is especially important with a sensor like the motion detector where you may want to process an event only after hours.

You can have Linux® devices automatically send a shutdown message to your Linux or Windows® based servers—so if there is a power outage, for example, you can rest assured that your servers will be safely and automatically shut down before your UPS runs out.

ServSensor V4E

The AlertWerks ServSensor V4E (EME134A-R2) enables you to integrate environmental sensors and surveillance cameras into one seamless remote monitoring system that watches over your premises. Use it to monitor data centers, offices, or anywhere it's important to keep an eye on conditions on the ground.

The ServSensor V4E supports up to four AlertWerks PT Dome Cameras. You can also use it with a wide range of analog cameras—your existing security cameras, sophisticated night-vision cameras, outdoor cameras, or low-cost CCTV cameras. The ServSensor V4E supports video of up to 640 x 480 dpi from up to four cameras. Set it to scan between cameras or show all cameras at once. It has enough memory to store up to 2320 pictures.

A built-in 4-port Pelco-D-compatible pan/tilt controller eliminates the need for expensive additional controllers and enables you to move and zoom cameras from the Web interface. See and organize data from the graphical interface. Plus, it can stream video and sensor information directly to your phone or PDA.

Use the four expansion ports on the front of the ServSensor V4E to add even more sensor and dry contact ports with Expansion Units. The ServSensor EXP8 (EME1X8) provides additional ports for eight Intelligent Sensors; the ServSensor EXPDC16 (EME1DC16) provides 16 dry contacts. (These units only work with the V4E.)

ServSensor V4EL

ServSensor V4EL models have all the features of the ServSensor V4E except support for video cameras, enabling you to take advantage of the capabilities of a high-end hub without paying for video you don't need.

You can order the V4EL with 20 or 60 integral dry-contact inputs to support third-party sensors or with no dry contacts. The V4EL is also available in DC-powered versions that accept 40–60-VDC power input via terminal block.

EME134A-R2: top: front view; bottom: rear view

Automatically generated graphs for each sensor.

TECH SPECS

Audio — Sampling Rate: 8 kHz
Configuration — Via Web browser (HTTP / HTTPS)
Encryption — SSL 128 bit (HTTPS), SNMPv3
Environmental — Temperature: 32 to 131° F (0 to 55° C);
Humidity: 20 to 80%, noncondensing;
Altitude: 0 to 9842 ft. (0 to 3000 m)
Memory — EME134A-R2: 64 MB SDRAM, 128 MB NVRAM;
EME144A-R2, EME149A-20, EME149D-20, EME149A-60, EME149D-60: 128 MB SDRAM, 128 MB NVRAM
Operating System — Embedded Linux
Processor — EME134A-R2: 32-bit Xscale PXA270, 312 MHz;
EME144A-R2, EME149A-20, EME149D-20, EME149A-60, EME149D-60: iMX25 CPU
Protocols Supported (Client) — DHCP, DNS, SMTP, (S) NTP, SNMP
Video — EME134A-R2: Sampling resolution: Up to 640 x 480 dpi;
Frame rate: Up to 30 fps;
Color depth: Up to 16 bit;
Streaming refresh rate: Up to 15 fps @ 320 x 240 dpi
CE Approval — Yes
Connectors — All: (8) RJ-45 sensor,
(1) RJ-45 10BASE-T/100BASE-TX Ethernet,
(1) USB Type A,
(1) 2-pin RS-485;
EME134A-R2 also:
(4) BNC F video,
(3) 3.5-mm audio jacks,
(4) 2-pin RS-485 PTZ.
(1) DB9 M RS-232/V.24 console port;
EME149A-20, EME149D-20 also:
(20) 2-pin dry contacts;
EME149A-60, EME149D-60 also:
(60) 2-pin dry contacts
Indicators — EME134A-R2, EME144A-R2: (1) Power, (1) Link, (1) Activity, (8) Status, (8) Online;
EME149A-20, EME149D-20: (1) Power, (1) Link, (1) Activity, (8) Status, (8) Online, (20) Status, (20) Online;
EME149A-60, EME149D-60: (1) Power, (1) Link, (1) Activity, (8) Status, (8) Online, (60) Status, (60) Online
Power — EME134A-R2, EME144A-R2, EME149A-20, EME149A-60: Autosensing 100– 240 VAC, 47–63 Hz external power supply;
EME149D-20, EME149D-60: 40–60-VDC terminal block
Size — EME134A-R2: 1.8"H x 10.9"W x 5.4"D (4.6 x 27.6 x 13.8 cm);
EME144A-R2: 1.8"H x 8.5"W x 5.4"D (4.6 x 21.6 x 13.8 cm);
EME149A-20, EME149A-60: 1.8"H x 17.2"W x 5"D (4.6 x 43.6 x 12.7 cm);
EME149D-20: 1.8"H x 17.1"W x 5.4"D (4.6 x 45.2 x 13.8 cm);
EME149D-60: 3.5"H x 18"W x 5.4"D (8.9 x 45.2 x 13.8 cm)

Item	Code
AlertWerks ServSensor V4E	**EME134A-R2**
AlertWerks ServSensor V4EL	
No Dry Contacts	**EME144A-R2**
with 20 Dry Contacts	**EME149A-20**
with 20 Dry Contacts, DC-Powered	**EME149D-20**
with 60 Dry Contacts	**EME149A-60**
with 60 Dry Contacts, DC-Powered	**EME149D-60**
ServSensor Expansion Units	
8-Port Sensor Hub	**EME1X8**
8-Port Relay Hub	**EME1P8**
16-Port Dry Contact Hub	**EME1DC16**

You may also need…

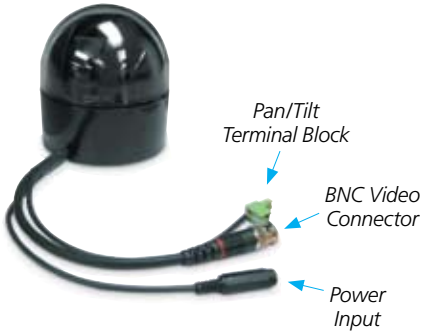
Rackmount Bracket for EME134A-R2 and (1) Expansion Hub	**EMEDRMK**
Rackmount Bracket for EME134A-R2 with Integral Half-Width DIN Rail for Mounting Sensors	**EMESDIN**
DIN Rail Mounting Bracket for Sensors	**EMESMB**

AlertWerks Cameras

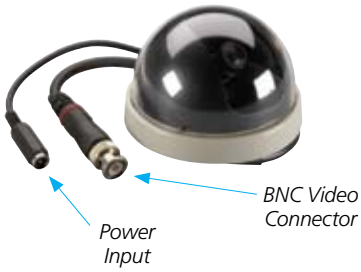
High-resolution dome cameras.

- High-resolution ⅓" Sony™ CCD cameras.
- Dome cameras feature remote pan and tilt; universal-mount cameras are stationary.
- Clear, sharp pictures, even in low light conditions.
- Horizontal resolution of 640 pixels.
- A precision, custom-designed stepper motor moves the dome camera over 330° (pan) and 160° (tilt) and can be controlled by the ServSensor V4E via its Web interface.
- ✦✦ **WARRANTY** — 1 Year

SCA201, SCE201 camera shown



EME1FC-NTSC, EME1FC-PAL camera shown



TECH SPECS

Engine — All models: Image sensor: Type: ⅓" Interline CCD; Min. illumination: 0.5 Lux / F1.2;
Picture elements: 640(H) x 480(V);
Dome models: S/N ratio: 45dB or more (AGC off)
Environmental — Temperature: 32 to 104° F (0 to 40° C); Humidity: 10–80% relative humidity, noncondensing
Opticals — Lens type: fixed; Focal length: 3.6 mm;
Viewing angle: 92°;
Video resolution: 330 TV lines;
Features: auto white balance, electronic iris 1/50 to 1/100,000;
P/T: Pan movement: 0 to 330°;
Tilt movement: 0 to 80°
Video Standard — SCA201, EME1FC-NTSC: NTSC; SCE201, EME1PC-PAL: PAL
CE Approval — Yes
Interface — Standard BNC or RCA (for best results, use BNC connectors and RG-6 coaxial cable)
Connectors — All models: Video: (1) BNC M Composite video, (1) Power input;
SCA201, SCE201: Also have (1) pan/tilt terminal block
Power — All models: 9-VDC external power supply;
EME1FC-NTSC, EME1FC-PAL: IEC adapter and EU, U.K., U.S., or Australia power cord
Size — SCA201, SCE201: 4.2"H x 4.5"W (10.7 x 11.5 cm);
EME1FC-NTSC, EME1FC-PAL: 2.6"H x 3.5" dia. (6.5 x 8.8 cm)
Weight — 1.1 lb. (0.5 kg)

Item	Code
AlertWerks PT Dome Cameras	
North American	**SCA201**
European PAL	**SCE201**
AlertWerks Universal-Mount Cameras	
North American	**EME1FC-NTSC**
European PAL	**EME1FC-PAL**

AlertWerks ServSensor Hubs

Safeguard your infrastructure and resources.

EME108A-R2: Top: front view; bottom: rear view

- Function as a central hub for your AlertWerks Intelligent Sensors.
- Use them for remote monitoring of a wide range of areas from server rooms to factory floors.
- Feature four or eight RJ-45 ports; AlertWerks Intelligent Sensors sold separately.
- Work with a wide range of sensors: temperature, humidity, water, airflow, smoke, motion, security, dry contact, and AC and DC voltages.
- Use sensors in any combination.
- Easy to set up, easy to use.
- Integrate hubs into your SNMP-managed network or use as an independent monitoring system.
- Java™ based Web user interface enables you to access the hub over any IP network—even the Internet.
- Instantly sound the alarm when a sensor exceeds predetermined limits.
- Send alerts through SNMP or e-mail.
- Keeps a time-stamped log of all events, which can be reviewed and graphed.
- PoE models are powered through the Ethernet cable.

✦✦ **WARRANTY** — 1 Year

The brains of your environmental monitoring system

The AlertWerks ServSensor is the central hub of the AlertWerks environmental monitoring system. Connect it to your network, attach sensors (**pages 14–16**), and you're ready to remotely view the status of your data centers and other facilities. The ServSensor features four or eight autosensing RJ-45 ports for connecting any of the AlertWerks Intelligent Sensors on **pages 14–16**. See the chart on **pages 6–7** for compatibility.

Check for temperature, humidity, and liquids. Know when server cabinet doors are open or closed and whether the cabinet is overheating. Use it for remote monitoring and management of a wide range of devices such as HVAC systems, security equipment, UPSs, generators, and industrial equipment.

The ServSensor is also available as kits, one with an AlertWerks Temperature Sensor (EME109A-R2) and two that include a AlertWerks Temperature Humidity Sensor (EME110A-R2, EME106A).

Sounds the alarm when things go wrong

In addition to enabling you to passively monitor sensors, the AlertWerks ServSensor actively alerts you when sensors exceed limits you determine. It can send alerts via SNMP or by e-mail.

PoE version, too

Both the 4- and the 8-port ServSensor models are also available with 802.3af PoE, so they can be powered over the Ethernet cable via a PoE injector. This enables you to place them in areas that don't have power outlets.

Easy installation

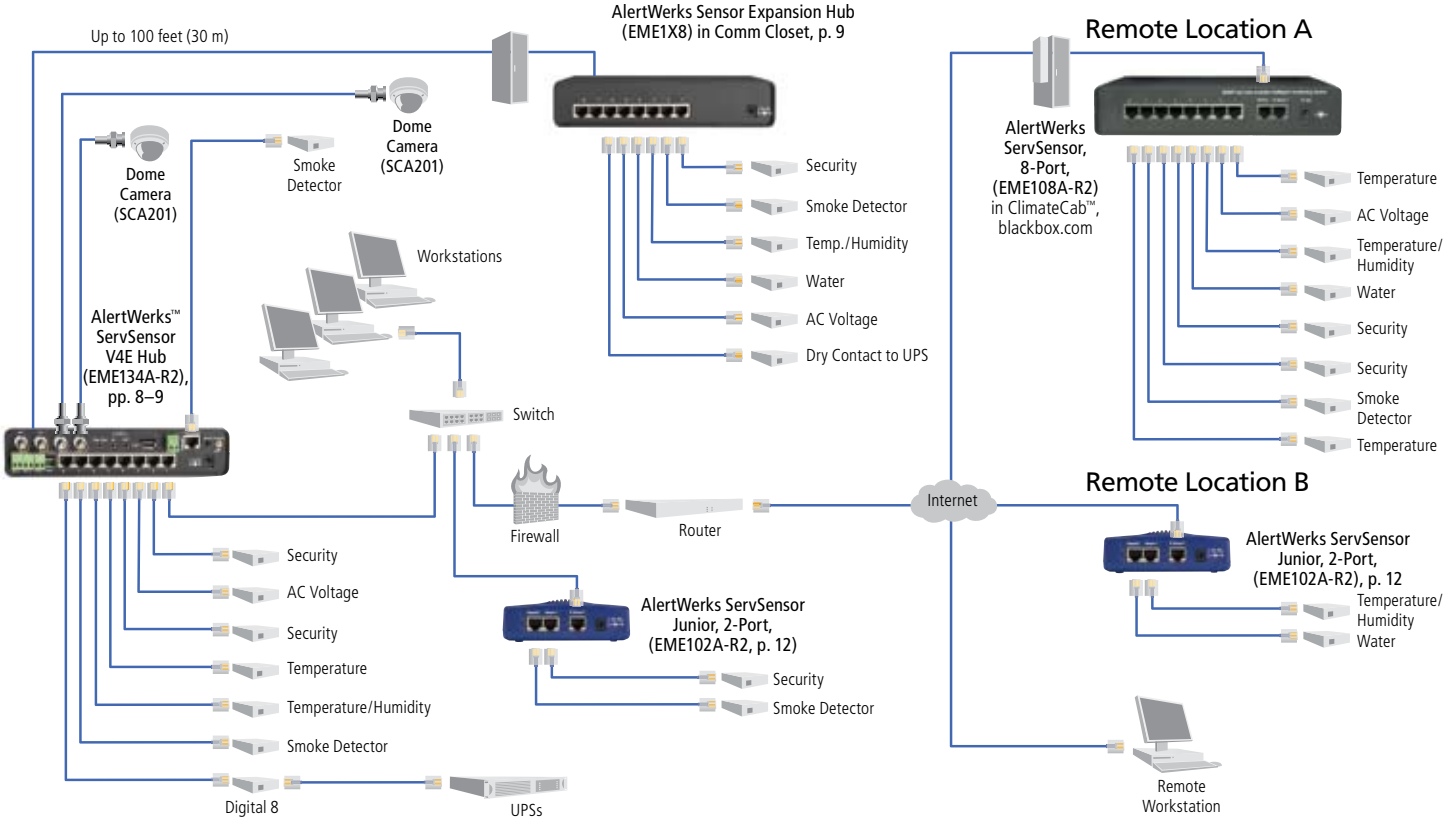
The ServSensor installs in minutes. Simply assign an IP address and connect to the embedded Web server. Plug in any of our AlertWerks Intelligent Sensors, and the ServSensor's autosensing feature will recognize the type and automatically configure the sensor. Its embedded Web server enables you to use a standard Web browser to view sensor status over any IP network—even the Internet. Check out the status of your data center from your desk or even while you're on the road.

Easy management

The ServSensor is fully SNMP manageable, so you can integrate it easily into any SNMP-managed network and monitor it through standard SNMP software such as HP® OpenView®.

The built-in database maintains a time-stamped log of all events, so you can go back to see what happened and when it happened. The integrated data collection and graphing package is especially useful in spotting trends in security, detection of AC power line voltage, measurement of DC voltage, and control relays, and for providing historical information for analysis.

For help planning your complete AlertWerks environmental monitoring system, call our FREE Tech Support. Our experts can help you decide how many hubs and sensors you need to meet your monitoring needs.



TECH SPECS

Configuration — Software utility for IP setup, then over Web browser
Environmental —
Temperature: EME108A-R2–EME110A-R2, EME158A: 32 to 104° F (0 to 40° C); EME105A–EME106A, EME155A: -31 to +176° F (-35 to +80°);
Humidity: EME108A-R2–EME110A-R2, EME158A: 30 to 70% noncondensing; EME105A–EME106A, EME155A: 20 to 80% noncondensing
Monitoring and Alarms — Via Web browser, e-mail, SNMP trap
Security— User/administrator password-protected login
CE Approval — Yes
RoHS — EME158A, EME105A, EME155A, EME106A
Connectors —
EME108A-R2–EME110A-R2, EME158A: (8) RJ-45 sensor ports, (1) 10BASE-T Ethernet port; EME105A–EME106A, EME155A: (4) RJ-45 sensor ports, (1) 10BASE-T Ethernet port
Indicators — LEDs: EME108A-R2–EME110A-R2, EME158A: (1) Power On, (1) Link,(1) Activity, (8) Status, (8) Online; EME105A–EME106A, EME155A: (1) Power On, (1) Link, (1) Activity, (4) Status, (4) Online
Power —
EME108A-R2–EME110A-R2: 90–260 VAC, 47–63 Hz autosensing external power supply; EME105A–EME106A: 100–240 VAC, 50–60 Hz autosensing external power supply; EME155A, EME158A: 100–240 VAC, 50–60 Hz autosensing external power supply or via 802.3af PoE
Size —
EME108A-R2–EME110A-R2, EME158A: 1.8"H x 9.2"W x 5.4"D (4.6 x 23.4 x 13.8 cm); EME105A–EME106A, EME155A: 1.8"H x 8.5"W x 5.4"D (4.6 x 21.6 x 13.7 cm)

Item	Code
AlertWerks ServSensor Hubs	
ServSensor	
8-Port, No Sensor	**EME108A-R2**
8-Port with PoE, No Sensor	**EME158A**
8-Port, (1) Temperature Sensor (Kit)	**EME109A-R2**
8-Port, (1) Dual Temperature and Humidity Sensor (Kit)	**EME110A-R2**
ServSensor 4	
4-Port, No Sensor	**EME105A**
4-Port with PoE, No Sensor	**EME155A**
4-Port, (1) Dual Temperature and Humidity Sensor (Kit)	**EME106A**

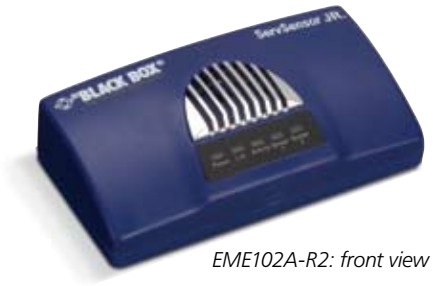
AlertWerks Intelligent Sensors, see pp. 14–16.

AlertWerks ServSensor Junior

An economical way to safeguard infrastructure and resources in smaller installations.

- Functions as a central hub for up to two AlertWerks Intelligent Sensors (pages 14–16).
- Ideal for limited areas, such as wiring closets.
- Java™ based Web user interface enables you to access the hub over any IP network—even the Internet.
- PoE model features 802.3af Power over Ethernet, so you can easily place the hub away from power outlets.
- Send alerts through SNMP or e-mail.

✦✦ **WARRANTY** — 1 Year



EME102A-R2: front view

EME102A-R2: rear view

Smart monitoring for small spaces

For small installations, choose the ServSensor Junior. With only two sensor ports, it's an economical way to watch over limited areas like wiring closets.

The AlertWerks ServSensor Junior is an affordable way to monitor smaller installations. It acts as the central hub of the AlertWerks environmental monitoring system in limited areas. Connect it to your network, attach AlertWerks sensors, and you're ready to remotely view the status—temperature, humidity, door opening and other characteristics—of every corner of your facilities. The ServSensor Junior is espcially useful for remote monitoring in remote sites such as wiring closets.

The ServSensor Junior features two autosensing RJ-45 ports for connecting any of the AlertWerks Intelligent Sensors. Also available are ServSensor Junior Kits, one with an AlertWerks Temperature Sensor (EME103A-R2) and one with an AlertWerks Dual Temperature Humidity Sensor (EME104A-R2).

A clever hub

The ServSensor Junior is smart. Its embedded Web server enables you to use a standard Web browser to view sensor status over any IP network—even the Internet. Check out the status of your data center from your office, from home, or from the road.

It's fully SNMP manageable, so you can integrate it easily into any SNMP-managed network and monitor it through standard SNMP software such as HP® OpenView®.

The built-in database maintains a time-stamped log of all events, so you can go back to see what happened and when it happened. The integrated data collection and graphing package is especially useful in spotting trends in security, detection of AC power line voltage, measurement of DC voltage, and control relays, and for providing historical information for analysis.

Active alarming

In addition to enabling you to passively monitor sensors, the AlertWerks ServSensor Junior actively alerts you when sensors exceed limits you determine. It can send alerts via SNMP or by e-mail.

Nice and easy

The ServSensor Junior installs in minutes. Simply assign an IP address and connect to the embedded Web server. Plug in one or two of our Intelligent Sensors and the ServSensor's autosensing feature will recognize the type and automatically configure it.

PoE frees you from power outlets

The PoE model features 802.11af Power over Ethernet, which enables you to place the unit without worry about having a nearby power outlet.

Use Dry Contacts for ServSensor Junior to add user-definable dry-contact sensors. Dry Contacts support up to 5 dry-contact inputs per RJ-45 port for a total of up to 10 dry-contact inputs on the sensor.

Each open/closed contact switch indicates Alarm or Normal with an input voltage range of 0 to 5 VDC that can be set through software. Normally open; normally closed can also be set through software.

TECH SPECS

Configuration — Software utility for IP setup, then over Web browser
Environmental —
Temperature:
32 to 104° F (0 to 40° C);
Humidity:
30 to 70% noncondensing;
Monitoring and Alarms — Via Web browser, e-mail, SNMP trap
Protocols Supported (Client) —
Security— User/administrator password-protected login
Connectors —
(2) RJ-45 sensor ports;
(1) 10BASE-T Ethernet port;
Power —
EME102A-R2–
EME104A-R2: 90–260 VAC, 47–63 Hz autosensing external power supply;
EME152A–EME154A: 100–240 VAC, 50–60 Hz autosensing external power supply or via 802.3af PoE
CE Approval — Yes except EME1DC-UPG
RoHS — EME102A-R2–EME104A-R2, EME152A–EME154A
Size —
1.3"H x 4.5"W x 2.5"D
(3.2 x 11.4 x 6.4 cm)

Item	Code
AlertWerks ServSensor Junior	
2-Port, No Sensor	**EME102A-R2**
2-Port, (1) Temperature Sensor (Kit)	**EME103A-R2**
2-Port, (1) Dual Temperature and Humidity Sensor (Kit)	**EME104A-R2**
AlertWerks ServSensor Junior with PoE	
2-Port, No Sensor	**EME152A**
2-Port, (1) Temperature Sensor (Kit)	**EME153A**
2-Port, (1) Dual Temperature and Humidity Sensor (Kit)	**EME154A**
Dry Contacts for ServSensor Junior, 5 Inputs	
15 ft. (4.5-m)	**EME1DC-015**
60 ft. (18.2-m)	**EME1DC-060**
100 ft. (30.4-m)	**EME1DC-100**
Activation Key for ServSensor Junior Dry Contacts (Required for Dry-Contact Use)	**EME1DC-UPG**

AlertWerks ServSensor Contact

Safeguard equipment and devices that use dry contact outputs to send alarm signals.

- Functions as a central hub for your AlertWerks Intelligent Sensors.
- Features 8 autosensing RJ-45 ports for connecting AlertWerks Intelligent Sensors plus 20 or 60 dry contacts to support third-party sensors.
- Adaptable to a wide range of devices, such as UPSs, other remote monitoring systems, and building management systems.
- Supports customized sensors for conditions like motion, gas, and sound.

✦✦ **WARRANTY** — 1 Year

Like the rest of the ServSensor family, the AlertWerks ServSensor Contact acts as a central hub of the AlertWerks environmental monitoring system. But the ServSensor Contact also features dry contact inputs for third-party equipment and devices that use dry contact outputs to send alarm signals. The ServSensor Contact is adaptable to a wide range of devices such as UPSs, other remote monitoring systems, and building management systems.

The hub comes with eight autosensing RJ-45 ports for connecting any of the Intelligent Sensors on **pages 12–13** plus 20 or 60 additional 2-wire, dry-contact ports. These specially designed ports enable you to make your own dry-contact cables quickly and easily.

The ServSensor Contact is rackmountable on standard 19" rails and includes rackmount ears.

All the ServSensor management features you expect

Like the rest of our ServSensor family, the ServSensor Contact is smart. You can use its embedded Web server to access it remotely, plus it's SNMP manageable, so it integrates easily into your managed network.

ServSensor Contact maintains a time-stamped log of all events and enables you to graph data to give you a visual overview of what's going on in your systems.

In addition to enabling you to passively monitor sensors, the AlertWerks ServSensor Contact actively alerts you when sensors exceed limits you determine. It can send alerts via SNMP or by e-mail.

Easy installation

The ServSensor Contact installs in minutes. Simply assign an IP address and connect to the embedded Web server. Plug in any of our Intelligent Sensors or dry-contact sensors and the ServSensor's autosensing feature will recognize the type and automatically configure it.

For help planning your complete AlertWerks environmental monitoring system, call our FREE Tech Support. Our experts can help you decide how many hubs and sensors you need to meet your monitoring needs.

EME111A-20-R2: top: front view; bottom: rear view

Black Box Explains

Dry contacts.

A dry contact, also called a volt-free contact, is a relay contact that does not supply voltage. The relay energizes or de-energizes when a change to its input has occurred. In other words, a dry contact simply detects whether or not an input switch is open or closed.

The dry contacts in the ServSensor Contact provide a simple two-wire interface that can be easily adapted to third-party sensors and devices. Because you define what the open or closed condition means, dry contacts are infinitely adaptable.

Use dry contacts to monitor alarms such as fire alarms, burglar alarms, and alarms on power systems such as UPSs. A very common use for dry contacts is to detect whether a cabinet door is open or closed.

TECH SPECS

Configuration — Software utility for IP setup, then over Web browser

Environmental —
Temperature:
32 to 131° F (0 to 55° C)
Humidity:
20 to 80%, noncondensing

Monitoring and Alarms — Via Web browser, e-mail, SNMP trap

Protocols Supported (Client) — DHCP, DNS, SMTP, (S) NTP, SNMPv1

Security— User/administrator password-protected login

Connectors —
EME111A-20-R2, EME112A-20-R2, EME113A-20-R2:
(8) RJ-45 sensor ports;
(20) dry contacts;
(1) RJ-45 10BASE-T Ethernet port;
EME111A-60-R2–EME113A-60:
(8) RJ-45 sensor ports;
(60) dry contacts;
(1) RJ-45 10BASE-T Ethernet port

Power —
100–240 VAC, 47–63 Hz autosensing external power supply

Size — 1.7"H x 18"W x 5"D (4.2 x 45.7 x 12.7 cm)

Item	Code
AlertWerks ServSensor Contact	
8-Port, 20 Dry Contacts with	
No Sensors	**EME111A-20-R2**
Temperature Sensor	**EME112A-20-R2**
Temperature/Humidity Sensor	**EME113A-20-R2**
8-Port, 60 Dry Contacts with	
No Sensors	**EME111A-60**
Temperature Sensor	**EME112A-60**
Temperature/Humidity Sensor	**EME113A-60**

AlertWerks Intelligent Sensors, turn the page.

AlertWerks Intelligent Sensors

Choose from a wide range of sensors to

EME1T2-005

CE Approval — Yes

Temperature Sensors

- Never need calibration.
- Measurement range of -67 to +167° F (-55 to +75° C) with 1° F resolution.
- Measurement accuracy of ±0.9° F from +14 to +167° F (-10 to +75° C).
- Connect up to four daisychainable sensors with CAT5 cable for a total distance of up to 1000 feet (304.8 m).
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Temperature Sensors	
Standard	
1-ft. (0.3-m) Cable	**EME1T1-001**
Remote	
5-ft. (1.5-m) Cable	**EME1T2-005**
Waterproof	
15-ft. (4.5-m) Cable	**EME1T3-015**
Daisychainable	**EMEDTEMP**
4-Pack	**EMEDTEMP4**
8-Pack	**EMEDTEMP8**

EMERW-020

EME1W1-015

CE Approval — Yes

Water Sensors

- Accurate enough to measure distilled water.
- Use Rope Water Sensors on the floor to detect the presence of water or liquid.
- Intelligent Rope Water Sensors report where the water is along the length of the sensor.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Spot Water Sensors	
15-ft. (4.5-m) Cable	**EME1W1-015**
60-ft. (18.2-m) Cable	**EME1W1-060**
100-ft. (30.4-m) Cable	**EME1W1-100**
AlertWerks Rope Water Sensor	
20-ft. (6.0-m) Cable	**EMERW-020**
10-ft. (3.0-m) Extension	**EMERWE-010**
AlertWerks Intelligent Rope Water Sensors	
20-ft. (6.0-m) Cable	**EMELW-020**
10-ft. (3.0-m) Extension	**EMELW-010**

EME1TH2-005

CE Approval — Yes

EME1TH3-015

Dual Temperature/Humidity Sensors

- Measure temperature from -40 to 167° F (-40 to +75° C) in 1° F increments.
- Accurate to ±0.9° F.
- Measure 0 to 100% relative humidity with 1% resolution and accuracy of ±3% at 77° F.
- Sensor element is water resistant.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Dual Temperature/Humidity Sensors	
Standard	
1-ft. (0.3-m) Cable	**EME1TH1-001**
Remote	
5-ft. (1.5-m) Cable	**EME1TH2-005**
Waterproof	
15-ft. (4.5-m) Cable	**EME1TH3-015**

EME1Y1-015

CE Approval — Yes

Security Sensors/Contacts

- Tell you when doors to secure areas have been opened.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Security Sensors/Contacts	
15-ft. (4.5-m) Cable	**EME1Y1-015**
60-ft. (18.2-m) Cable	**EME1Y1-060**
100-ft. (30.4-m) Cable	**EME1Y1-100**

EME1F1-005-R2

CE Approval — Yes

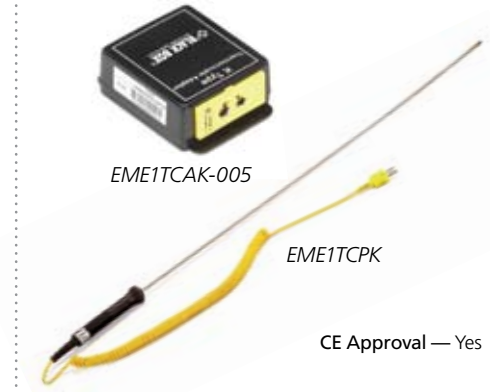
Airflow Sensor

- Thermistor sensor.
- On/off alarm signal for airflow.
- Two LEDs indicate the status.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Airflow Sensor	
5-ft. (1.5-m) Cable	**EME1F1-005-R2**

NOTE: For other sensor lengths, call Tech Support.

EME1TCAK-005



EME1TCPK

CE Approval — Yes

Thermocouples

- One measurement reading every second.
- For use in extreme industrial environments.
- J-Type model measures temperature ranges of +32 to +1382° F (0 to +750° C).
- K-Type model measures temperature ranges of -328 to +1472° F (-200 to +800° C).
- Use Thermocouple Adapters to attach a thermocouple to the AlertWerks ServSensor V4E (EME134A-R2), pages 8–9.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Thermocouples	
J-Type	**EME1TCPJ**
K-Type	**EME1TCPK**
AlertWerks Thermocouple Adapters with 5-ft. (1.5-m) cable	
J-Type	**EME1TCAJ-005**
K-Type	**EME1TCAK-005**
AlertWerks Thermocouple and Thermocouple Adapter	
J-Type	**EME1TCBJ-005**
K-Type	**EME1TCBK-005**

EME1K1-015

CE Approval — Yes

Dry-Contact Sensors

- Open/closed contact switch indicates Alarm or Normal.
- The input voltage range of 0 to 5 VDC can be set through software.
- Normally open; normally closed can be set through software.
- Current range: can sink up to 20 mA.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Dry-Contact Sensors	
15-ft. (4.5-m) Cable	**EME1K1-015**
60-ft. (18.2-m) Cable	**EME1K1-060**
100-ft. (30.4-m) Cable	**EME1K1-100**

work with AlertWerks ServSensor hubs.

EME1A1-005

EME1D1-005-R2

CE Approval — Yes

Voltage Sensors

- AC Voltage Sensor detects voltage from 50 to 250 VAC and indicates Alarm or Normal.
- DC Voltage Sensor is user programmable with both the base and top voltage from 0 to 60 volts.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Voltage Sensors with 5-ft. (1.5-m) Cable	
AC	**EME1A1-005**
DC	**EME1D1-005-R2**

EME1C1-005

CE Approval — Yes

AlertWerks 4-20 mA Converter

- Add a third-party, industrial sensor to AlertWerks ServSensor hubs.
- Enables you to communicate with equipment in industrial settings.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks 4-20 mA Converter	**EME1C1-005**

EME1M1-005-R2

CE Approval — Yes

Motion Detection Sensor

- Detection speed of 0.5–9.8 feet per second (0.15–3 m/sec).
- Temperature range of -4 to +144° F (-20 to +50° C).
- 150° detection angle.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Motion Detector Sensor 5-ft. (1.5-m) Cable	**EME1M1-005-R2**

EME1PM

CE Approval — Yes

Power Monitors

- Enables you to monitor power consumption in real time.
- Measure total active power, total reactive power, active power, reactive power, phase line voltage, phase line current, and power factor.
- Come in protective plastic enclosures that can be DIN-rail mounted.
- Three-phase meters can also be used as single-phase meters.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Power Monitors	
110-VAC, 3-Phase, 30 Amps, 4-Wire	**EME1PM**
220-VAC, 3-Phase, 100 Amps, 4-Wire	**EME2PM-R2**
110 VAC, 1-Phase, 100 Amps, 2-Wire	**EME3PM**
220-VAC, 3-Phase, 100 Amps, 4-Wire	**EME4PM**

EME1KJ8-005

CE Approval — Yes

Digital I/O Sensors

- Provide eight dry contacts on one sensor port.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Digital I/O Sensors with 5-ft. (1.5-m) Cable	
(8) Dry Contacts	**EME1J8-005**
(2) RJ-45 to (8) Dry Contacts	**EME1KJ8-005**

EME1S2-005

CE Approval — Yes

Photoelectric Smoke Detector Sensor

- More effective than ionization smoke detectors at sensing smoldering fires.
- Auto resets when smoke clears.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Photoelectric Smoke Detector Sensor 5-ft. (1.5-m) Cable	**EME1S2-005**

EME1SS-005

CE Approval — Yes

Siren and Strobe Light

- Siren sounds at 100 ± 3 dB at 100 cm.
- Supports maximum cable runs of up to 1000 feet (304.8 m). For details, contact our FREE Tech Support.
- Can be triggered by any other sensor connected to the ServSensor hub.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Siren and Strobe Light 5-ft. (1.5-m) Cable	**EME1SS-005**

EMESDIN

EMEDRMK

CE Approval — Yes

Rackmount Kits

- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Rackmount Kits	
Rackmount DIN Rail	**EMEDIN**
DIN Rail Mounting Bracket for Sensors	**EMESMB**
Rackmount Bracket for EME134A-R2 and (1) Expansion Hub	**EMEDRMK**
Rackmount Bracket for EME134A-R2 with Integral Half-Width DIN Rail for Mounting Sensors	**EMESDIN**

AlertWerks Intelligent Sensors

EME1P2O-005

CE Approval — Yes

Power Switches

- Controls electric power over the Internet or your local IP network.
- Normally in a closed (off) position or open (on) position, switched on or off by a control signal from the sensor hub.
- Metal oxide varistors and snubber circuits provide protection from electrical disturbance.
- Monitors power and load.
- Disconnect alarm sends a signal back to the sensor hub if the unit is unplugged.
- Includes a 5-ft. (1.5-m) CAT5 cable, which can be replaced with up to 100 feet of CAT5 for longer distances.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Power Switches, 5-ft. (1.5-m) Cable	
110V, Normally Closed	**EME1P1C-005**
110V, Normally Open	**EME1P1O-005**
220-V, Normally Closed	**EME1P2C-005**
220-V, Normally Open	**EME1P2O-005**
48 VDC, Normally Closed	**EME1PDCC-005**
48 VDC, Normally Open	**EME1PDCO-005**

CE Approval — Yes

Rope Fuel Sensor, 3-Meter

- Detects gasoline and other liquid hydrocarbon fuels, including diesel, jet fuel, and kerosene.
- Does not respond to the presence of water.
- The sensor consists of a 3-meter sensor rope, a 20-foot leader cable, and a sensor module.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Rope Fuel Sensor, 3-Meter	**EME1RF-003**

CE Approval — Yes

Ultrasonic Fuel Level Sensor

- Monitors liquid levels in a tank.
- Suitable for many kinds of liquids including water, diesel, gasoline, and waste.
- Works with many different tank sizes and shapes with programmable tank dimensions.
- Normal, low, and critical alerting.
- Low-profile design with industry standard SAE-5 stud mounting pattern.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Ultrasonic Fuel Level Sensor	**EME1FL-015**

EME120-PS

CE Approval — Yes

Power Adapters

- Work with all AlertWerks ServSensor hubs.
- Use the EME120-PS as a spare AC power supply.
- Use the EME100-DC with telecom power systems.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Power Adapters	
100–240 VAC to 7.5 VDC, 3 Amp, IEC Adapter	**EME120-PS**
40–60 VDC to 7.5 VDC	**EME100-DC**

EME1PMS1

CE Approval — Yes

Power Monitor Sensors

- Use with a Split-Core Current Transformer (EME1CT100, EME1CT150, EME1CT200, EME1CT300) to monitor power conditions.
- Measures power, voltage RMS, current RMS, and power factor.
- Displays critical data on an integral LCD.
- Supports maximum demand (MD) recording when used as part of the AlertWerks remote monitoring system.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Power Monitor Sensors	
Single-Phase, 100V, 60 Hz	**EME1PMS1**
Single-Phase, 220–240V, 50 Hz	**EME1PMS2**
Three-Phase, 100–500V, 60 Hz	**EME1PMS3**

Split-Core Current Transformers

- Can be opened and installed around a power line without disconnecting the power supply.
- Use with the Power Monitor Sensor (EMEPMS1–EMEPMS3) for connection to an AlertWerks ServSensor hub.
- Generous inner opening accommodates larger cables.
- ✦✦ WARRANTY — 1 Year

Item	Code
AlertWerks Split-Core Current Transformers	
100/5A	**EME1CT100**
200/5A	**EME1CT200**
300/5A	**EME1CT300**

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